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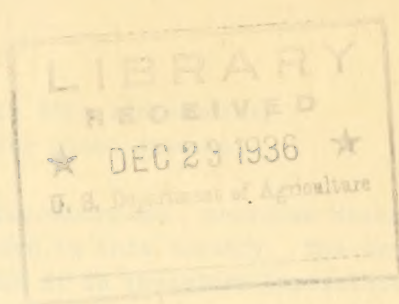
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Reserve



# PLANT INTRODUCTIONS

TWENTY-FIFTH

ANNUAL DESCRIPTIVE LIST

Season 1936-7

Containing Descriptions of the More Important

Introduced Plants Now Ready

for Listed Experimenters

Division of Plant Exploration and Introduction

Bureau of Plant Industry

United States Department of Agriculture

Washington, D. C.



Experimenters will please send carefully filled in inventories  
this before sending to their respective plant introducers.

Since the Twenty-fifth Annual List of Plant Introductions, considerable changes have been made in the list of plants, and the list is being revised. The available information concerning some of these is being gathered, and it is therefore impossible to give a complete list of the plants. The list is being revised, and the list is being revised. The list is being revised, and the list is being revised.

These plants have been imported because it is believed some direct or indirect benefit will be made of them. They are listed at the disposal of the experimenters. The list is being revised, and the list is being revised. The list is being revised, and the list is being revised.

It will be necessary for experimenters to preserve and refer to the Annual Lists of Plant Introductions or to the Inventories published by the Division, for information regarding the plants. Each Inventory lists the seeds and plants imported during a period of three months. Its object is to serve as an historical record; it is not printed immediately following the arrival of the plants, but eighteen to twenty-four months later. The edition is limited, and it cannot be supplied to all experimenters. This makes essential the preservation of the annual descriptive list as a work of reference, and the Division desires to urge upon its cooperators the importance of this step. Unless the Annual Lists are preserved, the Division later will be flooded with inquiries from persons who have received plants and who desire information concerning them. Answering such inquiries involves much unnecessary labor and expense.

For convenience in using the descriptive list, after each description is given in parenthesis the name of the garden or gardens at which the plants are being grown.

The plants are listed in the order in which they were received. The list is being revised, and the list is being revised. The list is being revised, and the list is being revised.

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### Descriptive List

Numbers preceding plant names are P. I. (plant introduction) numbers and, in correspondence concerning any plant, both number and name always must be given.

Nurserymen please see statement at end of paragraph 3 of introductory note, concerning items marked with an asterisk (\*).

90649. ABIES HOLOPHYLLA. Needle fir. From Manchuria. Collected by P. H. Dorsett and W. J. Morse, Bureau of Plant Industry. A tall handsome fir, eventually 100 feet or more high, with stout spreading or ascending branches and dark-green foliage. (Glenn Dale, Md.)

90837. ACACIA CRASSIUSCULA. Thicket acacia. From New South Wales, Australia. Presented by the Director, Botanic Gardens, Sydney. An attractive shrub, up to 10 feet high, with a broad top, ridged branchlets, very numerous linear falcate 1-nerved phyllodes 3 to 6 inches long, and short racemes of small, dense globular, yellow flower heads. Mature seeds planted immediately germinate in 3 weeks. Native to Tasmania. For trial in southern California and the warmer parts of the Gulf region. (Chico, Calif.)

111228. ACACIA DENTINENS. From South Africa. Presented by the McGregor Museum, Kimberley. Zwart haak. An attractive shrub or small tree, armed with very short recurved prickles along the branches. The compound leaves have 3 pairs of pinnae, each composed of one pair of obliquely ovate leaflets. The small yellow flowers are in loose, sub-globose heads. For trial in the Gulf region and southern California. (Chico, Calif.)

106603. ACACIA LAETA. From Egypt. Presented by Thos. W. Brown, Ministry of Agriculture, Giza. A small tree, armed with short, black, hooked prickles, or sometimes unarmed. The small glaucous leaves 2 to 3 inches long, consist of 2 to 3 pairs of oblique, oblong leaflets, and the flowers are in small spikes. Native to Ethiopia. The species has shown considerable hardiness in southern Florida. For trial in southern California and southern Florida. (Chico, Calif.)

116635. ACACIA SCORPIOIDES. From India. Collected at Lahore, Punjab, by Walter Koelz, Bureau of Plant Industry. An attractive shrub or small tree with gray branchlets, bipinnate leaves, and spiny stipules. There are 10 to 20 pairs of very small leaflets on the pinnae of the leaves. The yellow flower heads are in groups of 2 to 5 and are followed by attractive gray-downy pods 3 to 6 inches long. The tree yields an adhesive gum. For trial in southern California and the warmest parts of the Gulf region. (Chico, Calif.)

110884. ACACIA SP. From Colombia. Collected near Cucuta by W. A. Archer, Bureau of Plant Industry. This unidentified acacia, with compound leaves, is reported to grow into a large handsome tree. For trial in southern California and southern Florida. (Chico, Calif.)



102738. ACER ARGUTUM. Maple. From Manchuria. Obtained from Manshu Nosan Shokai, Inc., Dairen. A graceful, shrubby, deciduous tree with erect branches and doubly serrate leaves 2 to 4 inches long. The flowers, produced in April before the leaves, are greenish yellow, and the keys are borne in hanging racemes. This tree is native to the mountain woods of Japan and makes an elegant appearance with its pale-green leaves during the summer and its purple-brown branches in the winter. For trial in all but the coldest parts of the Northern States. (Glenn Dale, Md.)

102739. ACER CISSIFOLIUM. Maple. From Manchuria. Obtained from Manshu Nosan Shokai, Inc., Dairen. A Japanese maple of compact rounded, rather shrubby habit, becoming 30 feet or more high, with leaves composed of three leaflets up to 4 inches long. It is closely related to Acer negundo. The minute flowers are produced in May, with the leaves; the keys, about 1 inch long, occur in long racemes. In autumn the foliage turns red and yellow. For trial throughout the United States except in the warmer parts of the Southern States. (Glenn Dale, Md.)

102289. ACER DIABOLICUM. Devil maple. From Manchuria. Obtained from Manshu Nosan Shokai, Inc., Dairen. A tree up to 30 feet high with 5-lobed leaves 4 to 8 inches across, the broadly ovate lobes being coarsely and remotely dentate. The racemes of small yellow flowers are followed by keys with bristly nutlets. It is native to Japan and belongs in the same section of the genus as the sugar and black maples. For trial as far north as central New York and west of the Rocky Mountains. (Glenn Dale, Md.)

102290. ACER MICRANTHUM\*. Maple. From Manchuria. Obtained from Manshu Nosan Shokai, Inc., Dairen. A graceful shrubby tree of the section Macrantha, native to Japan. The cordate, double-serrate leaves are 5- to 7-lobed; the small green-white flowers are in slender racemes and the wings of the keys spread almost at right angles. For trial from Massachusetts and central New York southward and west of the Rocky Mountains. (Glenn Dale, Md.)

82471. ACER PSEUDO-SIEBOLDIANUM. Maple. From Chosen. Presented by the Forest Experiment Station, Keijo. A small tree, native to Manchuria, with cordate leaves divided into 9 to 11 lanceolate serrate lobes, and corymbs of purple flowers. It belongs in the section Palmata and is closely related to Acer sieboldianum. (Supply very limited.) For trial in all but the warmest and coldest parts of the United States. (Glenn Dale, Md.)

102292. ACER RUFINERVE. Maple. From Dairen, Manchuria. Procured from Manshu Nosan Shokai, Inc. A small deciduous Japanese tree with small bluish-white young shoots, and dark green irregularly serrate, 3-lobed or obscurely 5-lobed leaves. It belongs in the section Macrantha and is closely related to Acer pennsylvanicum. The keys are up to  $\frac{3}{4}$  inch long and spread at right angles. Occasionally the young foliage, the leaf-stalks, and the midribs are red. For trial in the upper South and the milder parts of the Northern States. (Glenn Dale, Md.)

101172. ACER SIEBOLDIANUM MICROPHYLLUM. Maple. Seedlings from trees growing on the campus of the Massachusetts Agricultural College, the seeds having been presented by Prof. L. L. Blundell. A shrub or small tree, native to Japan, with 7- to 9-lobed leaves only 2 inches broad. It is related to Acer palmatum but is somewhat coarser.



The small yellowish flowers are borne on nodding peduncles and the winged fruits, less than an inch long, spread at an obtuse angle. For trial from southern New England and central New York southward and west of the Rocky Mountains. (Glenn Dale, Md.)

65018. ADENOCARPUS FOLIOLOSUS. From Mercedes, Teneriffe, Canary Islands, at an altitude of 2,300 feet. An upright leguminous shrub 6 to 18 feet high, in general habit like a genista with crowded branches and leaves. The small numerous yellow flowers, in compact terminal racemes, appear in May and June. The ornamental value of the plant, however, is mainly in its foliage. Seeds do not sprout without treatment, but the plant may be propagated from cuttings taken with a heel in early fall. For trial in hot arid regions having mild winters. (Chico, Calif.)

114711. ADENOSTEMMA VISCOSUM.\* From China. Received from Szechwan Province, through the Botanic Garden, Sun Yat Sen Memorial Park, Nanking. A tropical perennial herb, with opposite, dark-green, conspicuously veined, broadly ovate crenate leaves up to 5 inches long, the base narrowed into a long petiole, and small inconspicuous heads of white flowers. The plant is closely related to ageratum. For trial in the South and on the Pacific coast. (Glenn Dale, Md.)

111424. ALOE SP.\* From Italy. Received from La Mortola, Ventimiglia, through the Atkins Institution of the Arnold Arboretum, Cienfuegos, Cuba. Plants grown from seed received under the name Aloe striata hybrida. Aloe striata is a plant with pale or reddish upcurved-spreading, triangular-oblong leaves 15 to 20 inches long by 4 to 6 inches wide, with entire white margins. For trial indoors only except in the warmer parts of the Gulf region and the Southwest. (Glenn Dale, Md.)

93829. ALYOGYNE HAKEAFOLIA. Malvaceae. From Western Australia. Presented by Miss Ida W. Richardson, Perth. An evergreen shrub 6 to 10 feet high, with narrow-lobed or deeply serrate leaves, and large purple-lilac flowers in May and June. It may be grown in full sunlight or partial shade. Seeds germinate readily after a resting period under dry conditions. Plants should be kept well cut back during the first summer, and thereafter should be cut back each year, after flowering, to the heavy framework previously established. The plant usually requires support. For trial in the warmer parts of California and the Gulf region. (Chico, Calif.)

101289. AMPHICOME ARGUTA. Bignoniaceae. From New Zealand. Obtained from A. Wilkinson, Tauranga. An herbaceous perennial, up to 3 feet high, native to northern India. The compound leaves are made up of 5 to 9 deeply serrate lanceolate leaflets 2 inches long, and the rose-colored funnel-shaped flowers, 1 inch long, are borne in axillary and terminal racemes 6 to 8 inches long. The plant is said to do well in a rather dry sunny situation and to require little water, but should have support. It has flowered the first season from seed at Chico, Calif. For trial in the South and on the Pacific coast. (Chico, Calif.)

101760. ANTHEMIS SANCTI-JOHAANNIS.\* Camomile. From England. Obtained from E. W. Th. Ingwersen, Ltd., Birch Farm Hardy Plant Nursery, Sharpthorne, East Grinstead, Sussex. An ornamental perennial 3 to 4 feet high, native to mountain slopes of Bulgaria at 4,000 feet altitude. It is much like the familiar Anthemis tinctoria but differs in the grayer, more woolly leaves and the intense orange flowers. For trial throughout the United States except in the warmest parts. (Glenn Dale, Md.)



105695. *ANTIDESMA* SP. Euphorbiaceae. From China. Collected at 1,800 feet altitude in Kwangsi Province by A. N. Steward and H. C. Cheo, University of Nanking. The antidesmas are mostly tropical trees and usually have large simple alternate leaves and spikes of small inconspicuous flowers. The present species is said to be a shrub 8 feet high, with red edible fruits. For trial in the warmer parts of the Gulf region and southern California. (Glenn Dale, Md.)

114860. *ARISTEA ECKLONI*.\* From Ceylon. Obtained at Nuwara, Eliya, by Walter Koelz, Bureau of Plant Industry. An iris-like plant from South Africa which has become naturalized in the high altitudes of Ceylon. It is about 1½ feet high, with narrow leaves about 10 inches long, and is very attractive with its numerous clusters of brilliant blue flowers. For trial in the Gulf States and California. (Glenn Dale, Md.)

114861. *ARISTOLOCHIA ELEGANS*.\* Calico-flower. From Ceylon. Collected at Kandy, by Walter Koelz, Bureau of Plant Industry. A vigorous climber with reniform-cordate leaves 2 to 3 inches across and attractive flowers with a large tubular open-mouthed dark-chocolate-colored corolla 3 inches across. For trial in southern Florida and southern California. (Glenn Dale, Md.)

77173. *ARTHROPODIUM CIRRHATUM*. Liliaceae. From Wanganui, New Zealand. Presented by the Town Clerk, Wanganui City Council. An herbaceous perennial forming large clumps of hemerocallis-like foliage above which rise the 3-foot branching flower stalks, each bearing many white starry flowers much like an *Anthericum* or *Paradisea*. For trial in the Southeastern States and on the Pacific coast. (Glenn Dale, Md.)

75149. *ARUNDINARIA NAGASHIMA*. Bamboo. Presented by the Director, Royal Botanic Gardens, Kew, England. A hardy dwarf running bamboo, ultimately producing culms about 2½ feet high, often with branches from the upper nodes and with lanceolate to oblong-lanceolate leaves, 2 to 6 inches long and three-eighths to seven-eighths of an inch wide, slightly rough on the upper surface. It is native to Japan. The plant is evergreen at temperatures down nearly to 0° F., and is attractive for mass planting or as a ground cover, either in full sun or partial shade. On account of the hardiness and vigor of the underground parts of the plant it becomes weedy if the rhizomes are not prevented, by a deep barrier of some sort, from spreading beyond set limits. Eradication, if desired, is difficult. Plants furnished in lots of 5 or 10. (Supply very limited.) For trial in the middle and upper South and the mildest parts of the Northern States. (Chico, Calif.)

23014. *ASPARAGUS* SP.\* From China. Collected at Hangchow, Chekiang, by Frank N. Meyer, Bureau of Plant Industry. A very small herbaceous asparagus, attaining a height of only 3 to 5 inches. It is used as a lining along paths in small gardens and requires a shady situation. The plant endures light frosts without injury. For trial in the middle and lower South and in southern California. (Savannah, Ga. Item included in check list for Glenn Dale, Md.)

89039. *ASPARAGUS* SP.\* From Manchuria. Collected near Impukujoshi by P. H. Dorsett and W. J. Morse, Bureau of Plant Industry. A somewhat woody plant up to 3½ feet high, found growing wild. The plant resembles the edible asparagus in appearance and is evergreen at temperatures considerably below 0° F. For trial throughout the Northern States. (Glenn Dale, Md.)



110872. ASTER HOLOPHYLLUS. From the Soviet Union. Received from the Botanic Garden, Samara. An annual or biennial, with oblong-linear puberulent leaves, and small sky-blue flower heads. Native to the Amur River region, Siberia. For trial in the Northern States. (Glenn Dale, Md.)

67067. BAECKEA PLATYCEPHALA Myrtaceae. From South Australia. Presented by Edwin Ashby, Blackwood. A small densely branched shrub, 1 or 2 feet high, with thick leaves crowded at the ends of the branches, and small white flowers in the upper axils. Native to Western Australia. For trial in southern California and southern Florida. (Chico, Calif.)

111813. BERGENIA SP. Rockfoil. Saxifragaceae. From India. Received from H. A. Lee, Simla. A perennial herb, in the young stage closely resembling Bergenia stracheyi and perhaps a form of it. That species grows to about 1 foot high, with obovate glabrous leaves, ciliate or crenate on the margin, and with pink to rose or yellow flowers in small panicles appearing early in the spring. For trial in the upper South, the milder parts of the Northern States, and on the Pacific coast. (Glenn Dale, Md.)

102740. BETULA JAPONICA MANDSHURICA. Birch. From Manchuria. Obtained from Manshu Nosan Shokai, Inc., Dairen. A white-barked birch up to 80 feet high with the leaves often broadly wedge-shaped at the base. Native to Hopeh Province, China. For trial in the upper South and in the milder parts of the Northern States. (Glenn Dale, Md.)

78429. BRYOPHYLLUM MINIATUM. From Madagascar. Collected by Charles F. Swingle, Bureau of Plant Industry, and Dr. Henri Humbert, University of Algiers. An erect slender fleshy plant 1 to 2 feet high, native to Madagascar. The smooth green oval-obtuse leaves are up to 3 inches long, with petioles slightly pink and shallow crenate sinuous margins. The small flowers, bright red, with fine brown spots, are in a lax terminal panicle. For trial indoors only except in frostless localities. (Glenn Dale, Md.)

78427 and 101364. BRYOPHYLLUM SP.\* From Madagascar. Collected by Charles F. Swingle, Bureau of Plant Industry, and Dr. Henri Humbert, University of Algiers. Received as Kalanchoe fedtschenkoi but the pendulous habit of the flowers and that of sprouting from the crenations of the leaves indicate that the plant properly belongs in the genus Bryophyllum. A rather small succulent, about 10 inches high, with crenate rounded-oval leaves an inch and a half long, bluish green, overcast with purple, and small purplish flowers in a loose cluster terminating the slender stem. Native to Madagascar. For trial indoors only except in frostless localities. (Glenn Dale, Md.)

78428. BRYOPHYLLUM SP.\* From Madagascar. Collected by Charles F. Swingle, Bureau of Plant Industry, and Dr. Henri Humbert, University of Algiers. Received as Kalanchoe gastonis-bonnieri but the pendulous habit of the flower with the stamens inserted at the base of the tube, and habit of sprouting from the crenations of the leaves indicate that it properly belongs in the genus Bryophyllum. It is native to Madagascar. During the nonblooming periods, this succulent is a low plant with a very short stem and a rosette of light-green leaves, dotted with darker green. When about to flower the stem elongates to a height of nearly 2 feet, bearing at its summit a lax corymb of light-pink flowers. For trial indoors only except in frostless localities. (Glenn Dale, Md.)



97616. BRYOPHYLLUM SP.\* From Scotland. Presented by the Royal Botanic Garden, Edinburgh. Received as Kalanchoe rotundifolia but the pendulous habit of the flowers, with the stamens inserted at the base of the tube, and the habit of sprouting from the crenations of the leaves indicate that it properly belongs in the genus Bryophyllum. The plant is a succulent perennial 1 to 3 feet high, with a trichotomously branched slender leafy stem. The fleshy leaves, 1 to 2 inches long, vary from broadly obovate to spatulate and are entire or crenate. The small orange or yellow flowers are borne in axillary clusters. Native to South Africa. For trial indoors only except in the warmest localities in the Gulf region and southern California. (Glenn Dale, Md.)

114721. BUDDLEIA LINDLEYANA SINUATO-DENTATA. Butterfly-bush. From Szechwan Province, China. Received through the Botanic Garden at Nanking. A shrub about 4 feet high, with ovate to oblong-lanceolate, acuminate, sinuate-dentate leaves 2 to 4 inches long, and dark purplish-red flowers in dense erect racemes 3 to 5 inches long. Native to western China. For trial in all but the warmest parts of the Southern States and on the Pacific coast. (Glenn Dale, Md.)

105592. CALLICARPA RUBELLA. Beautyberry. From China. Collected at 1,100 feet altitude in Kwangsi Province, by A. N. Steward and H. C. Cheo, University of Nanking. Native name, Tze chu. A shrub or small tree up to 20 feet high, native to India and China. The obovate tomentose leaves are 5 inches long, and the small pink flowers, in axillary cymes, are followed by purple berries. For trial in the Gulf region and in the milder parts of the Pacific coast region. (Glenn Dale, Md.)

98140. CALLICARPA SP.\* From England. Obtained from Aldenham House Gardens, Elstree, Herts. (Received under the specific name koreana, for which no published description has been found.) It may be identical with Callicarpa japonica, which is a shrub 2 to 5 feet high with opposite, elliptic or ovate-lanceolate, long acuminate, serrulate leaves, wedge-shaped at the base, and conspicuous purple fruits. The small pink or whitish flowers are in axillary cymes. For trial from southern New York and Ohio southward and west of the Rocky Mountains. (Glenn Dale, Md.)

113759. CALLISTEMON RIGIDUS. Bottlebrush. From Australia. Presented by the Melbourne Botanic Gardens, South Yarra. These plants, received under the name Lineari-folius, are seedlings of a garden form described as having linear-lanceolate leaves. The type is a tall shrub with narrowly linear leaves, rarely 30 feet high, native to New South Wales, and some of the seedlings of the present broader-leaved form may be expected to revert to the type. The showy flowers, with dark-red stamens an inch long, are borne in large dense spikes. For trial in the milder parts of California and the Gulf region. (Chico, Calif.)

118764. CALLISTEMON SP. Bottlebrush. From Australia. Presented by the Director, Botanic Gardens, Sydney, N. S. W. A handsome shrub of drooping habit, that has reached a height of 5½ feet, with a spread of 7 feet, at Chico, Calif. The foliage is dense and the individual leaves resemble those of Callistemon acuminatus. The flowers, with very dark-red stamens an inch long, are in dense spikes 3 to 5 inches long and appear during April and early May. This is a selection from second-generation seedlings of a cross between C. citrinus and C. acuminatus, and the plants here offered were grown from cuttings. For trial in the milder parts of California and the Gulf region. (Chico, Calif.)



101200. *CALOTHAMNUS ASPER*. Net-bush. Myrtaceae. From Australia. Presented by Edwin Ashby, Wittunga, South Australia. A hairy evergreen shrub, with crowded linear flat leaves and short dense clusters of flowers with crimson stamens. It does well in full sunlight and is the most ornamental calothamnus thus far tested at Chico. The plant may be propagated by ripe-wood cuttings in fall. For trial in the milder parts of California and the Gulf region. (Chico, Calif.)

114724 *CAMPANUMAEA JAVANICA*. Campanulaceae. From China. Received from Szechwan Province, through the Botanic Garden, Sun Yat Sen Memorial Park, Nanking. A perennial twining vine with opposite leaves and yellowish, brown-veined, broadly bell-shaped flowers  $1\frac{1}{4}$  inches across. For trial in the Gulf region and in California. (Glenn Dale, Md.)

103491. *CARISSA SPINARUM*. From India. Collected at Bhadwar, Kangra, Punjab, at 2,000 feet altitude, by Walter Koelz, and presented by the University of Michigan. A spiny suberect evergreen shrub 6 feet high, native to the lower slopes of the Himalayas, with elliptic-ovate leathery leaves 1 to 2 inches long and white tubular fragrant flowers,  $\frac{1}{2}$  inch long, in dense terminal cymes. The subglobose flack fruits are  $\frac{1}{4}$  inch in diameter and are said to be edible. In India the shrub is said to be eaten greedily by sheep and goats and to survive under such browsing even in poor rocky soils. It is grown as an individual ornamental and also as a hedge, trimmed. For trial in the warmer parts of the Gulf region and southern California. (Glenn Dale, Md.)

77176. *CARMICHAELIA ARBOREA*. From Wanganui, New Zealand. Presented by the Town Clerk, Wanganui City Council. A New Zealand leguminous shrub up to 9 feet high, somewhat resembling Scotch broom but with thin flat green branches taking the place of leaves. The clusters of small pea-like lilac-striped flowers are followed by small black pods the sides of which drop off and expose the bright-red seeds surrounded by the dark margin of the pod. For trial in the warmer parts of California and the Gulf region. (Chico, Calif.)

90849. *CARMICHAELIA EXSUL*. From Australia. Presented by the Director, Botanic Gardens, Sydney, N. S. W. A leguminous shrub of rather upright habit, 2 to 4 feet high, with flattened branchlets, compound leaves made up of 3 to 5 obovate, emarginate leaflets nearly 1 inch long, and axillary peduncles bearing 1 or 2 yellowish white flowers. The shrub is rather more attractive than most related species and is suited to dry sunny situations. It is readily propagated in the greenhouse from cuttings of 1- to 2- year old wood. Native to Lord Howe Island. For trial in the warmer parts of California and the Gulf region. (Chico, Calif.)

111349. *CATALPA DUCLOUXII*.\* Bignoniaceae. From China. Received from H. H. Chung, National Wu-Han University, Wuchang, Hupeh. A tree to 80 feet high, native to central and western China, with ovate-cordate leaves 4 to 8 inches long. The flowers, smaller than those of our American catalpas, are rose pink, with orange markings in the throat, and are borne in 5- to 15-flowered racemes. The slender pods are up to 2 feet long. For trial in the Southern States and on the Pacific coast. (Glenn Dale, Md.)

102925. *CELTIS* SP. Hackberry. From China. Collected at Kuanyinchiao, Lu Shan, Kiangsi Province, and presented by A. N. Steward, University of Nanking. An unidentified hackberry obtained for testing in the Gulf region and on the Pacific coast. Supply very limited. (Glenn Dale, Md.)

76013. CLEMATIS ARMANDI. Armand clematis. From France. Obtained from Vilmorin-Andrieux & Co., Paris. An ornamental Chinese vine with fragrant white flowers. It is characterized by the abundance and persistence of its foliage. Propagation is by seeds or cuttings, but seed must be planted as soon as mature and it requires three months to sprout. Cuttings of half-ripe wood with leaves root well in the propagating house. For trial in the Southern States and on the Pacific coast. (Chico, Calif.)

82362. CLEMATIS MONTANA RUBENS X PATENS. From France. Purchased from Lemoine & Sons, Nancy. Var. Superba. A hybrid between Clematis montana rubens and C. patens. It is a very vigorous climber with large white flowers. For trial from Philadelphia southward and on the Pacific coast. (Glenn Dale, Md.)

82363. CLEMATIS MONTANA. From France. Obtained from Lemoine & Sons, Nancy. Var. Undulata. A variety of this woody climber bearing large flowers with waved sepals, white flushed with mauve. For trial from Philadelphia southward and on the Pacific coast. (Glenn Dale, Md.)

108759. CLEMATIS VITALBA.\* Travelers'-joy. From Bulgaria. Collected in the Balkan Mountains by Dr. E. A. Anderson, Balkan Expedition of the Arnold Arboretum. A handsome strong-growing vine with pinnate ovate leaflets and axillary and terminal panicles of slightly fragrant flowers. Native to the Mediterranean region but collected in an unusually cold and dry region. For trial in all except the coldest parts of the Northern States. (Glenn Dale, Md.)

109056. CLEMATIS SP. From Turkey. Collected at Giresun by H. L. Westover and C. R. Enlow, Bureau of Plant Industry. A plant somewhat resembling the common Clematis vitalba, which is a climber ascending to 25 feet, with axillary panicles of white flowers appearing in late summer or early fall. For trial in the temperate parts of the eastern United States and on the Pacific coast. (Glenn Dale, Md.)

109475. CLEMATIS SP. From Turkey. Collected northwest of Adana, by H. L. Westover and C. R. Enlow, Bureau of Plant Industry. A plant which in the young stage closely resembles the preceding (P. I. No. 109056). For trial in the temperate parts of the eastern United States and on the Pacific coast. (Glenn Dale, Md.)

105678. CLERODENDRUM SP. Verbenaceae. From China. Collected in a valley at 1,200 feet altitude near Ta Tseh Tsuen, Yung Hsien, Kwangsi Province, by A. N. Steward and H. C. Cheo and presented through the University of Nanking. A tree 18 feet high, with opposite, elliptic, shortly acuminate glabrous leaves with blades up to 6 inches long. For trial in the Gulf region and on the California coast. (Glenn Dale, Md.)

118412. COCCOCYPSELUM lanceolatum.\* From Brazil. Collected at Rio de Janeiro by Dr. Doris Cochran, of the Smithsonian Institution. A low spreading herb with softly pubescent ovate leaves, the lower ones purple beneath, and small heads of inconspicuous violet flowers. For trial in the Gulf region and in southern California. (Glenn Dale, Md.)



117599. COMBRETUM SP. From China. Collected at Chang An, Yung Hsien, and presented by A. N. Steward, University of Nanking. The different species of Combretum vary exceedingly in their characteristics. In the young stage the plant of this unidentified species is woody, erect, with attractive light green, obovate, shortly acuminate leaves up to 8 inches long. For trial in the Gulf region and in southern California. (Glenn Dale, Md.)

80394. COTONEASTER HARROVIANA. From India. Obtained from Hooghly District, Bengal, through the American Consul at Calcutta. An evergreen shrub, native to Yunnan, China, about 6 feet high, of a loose spreading habit, with small, shining, dark-green, silky-tipped leaves, dense corymbs of white flowers, and small red fruits. For trial in the middle and lower south and on the Pacific coast. (Glenn Dale, Md.)

103209. COTONEASTER RACEMIFLORA SOONGORICA. From China. Collected between Muli and Kulu, Szechwan, on open mountain slopes at 10,000 feet altitude, by Dr. J. F. Rock, University of California Botanical Garden Expedition, and presented through Dr. T. H. Goodspeed, Department of Botany. An erect shrub up to 4 feet high, with slender, spreading branches. The leaves are oval and usually somewhat obtuse, and the small white flowers are followed by red fruits. (Supply very limited.) For trial from central New York southward and west of the Rocky Mountains. (Glenn Dale, Md.)

103201. COTONEASTER SALICIFOLIA. Willowleaf cotoneaster. From southeastern Tibet. Collected in the Sikitung Mts., Tsarung Province, at 11,000 feet altitude, by Dr. J. F. Rock, agricultural explorer for the University of California Botanical Garden Expedition, and presented through Dr. T. H. Goodspeed, Dept. of Botany, University of California. An evergreen shrub up to 15 feet high, with slender spreading branches, ovate-lanceolate or elliptic-oblong acute leaves up to over an inch long, white tomentose beneath, small white flowers, and bright-red roundish berries 1/5 inch in diameter. Native to western China. (Supply very limited.) For trial in the milder parts of the Northern States. (Glenn Dale, Md.)

39585. CRATAEGUS LAUTA. From Jamaica Plain, Mass. Obtained from the Arnold Arboretum. As originally described, from the parks of Boston where it was growing, the plant was a spiny arborescent shrub. At Chico, Calif., it has grown to a tree 25 feet high, of rather upright habit and with a globular top. The dark-green ovate serrate leaves are shallowly lobed and the abundant ovoid orange-red fruits, 3/4 inch long, are borne in clusters of 5 to 10. For trial in the Northern States. (Chico, Calif.)

114813. CUDRANIA TRICUSPIDATA. From China. Received from Szechwan Province, through the Botanic Garden, Sun Yat Sen Memorial Park, Nanking. A small to medium-sized deciduous tree, related to the osage-orange, with thorny branches, elliptic-ovate acuminate leaves, and reddish edible fruits up to 1 inch in diameter. The fruit varies greatly in size and quality and only that of occasional trees is of value for human food. (Supply limited.) For trial in the lower South and in the milder parts of the Southwest. (Glenn Dale, Md.)

114036. CUPRESSUS BENTHAMII. Cypress. From Costa Rica. Collected at San Pedro by W. A. Archer, Bureau of Plant Industry. A tree up to 70 feet high, with slender horizontal branches and bright-green leaves, forming a pyramidal head. Native to Mexico. For trial in southern California and the warmer parts of the Gulf region. (Chico, Calif.)

112084. *CUPRESSUS GLABRA*. From Africa. Presented by the Forest Department, Kenya Colony, through the Atkins Institution of the Arnold Arboretum, Cienfuegos, Cuba. A tree 25 to 30 feet in height, with a compact, narrowly oval, somewhat pyramidal crown. The branches, particularly of the younger tree, are strongly upright, the bark is thin, smooth, dark purple-red; the trunk tapering, sometimes divided into several branches. Foliage bright blue-green. For trial in the warmer parts of southern California and the Gulf region. (Glenn Dale, Md.)

112085. *CUPRESSUS TORULOSA*. From Africa. Received from the Forest Department, Kenya Colony, through the Atkins Institution of the Arnold Arboretum, Cienfuegos, Cuba. A tall pyramidal tree to 150 feet high, with short horizontal branches, ascending at the extremities; branchlets slender, drooping. It is native to the Himalayas at altitudes from 5,500 to 8,000 feet and will probably be hardy only in the far southern United States. For trial in the Gulf region and along the California coast. (Glenn Dale, Md.)

89644. *CYRTANTHUS LUTESCENS*.\* Amaryllidaceae. From the Netherlands. Obtained from C. C. Van Tubergen (Ltd.), Zwaneburg Nurseries, Haarlem. A South African bulbous plant with two to four linear green flaccid leaves 1 foot long appearing with or after the flowers, which are tubular yellowish, 2 inches long, and in umbels of two to three. For trial outside in the Gulf region and in southern California and indoors elsewhere. (Glenn Dale, Md.)

78510. *CYRTANTHUS SP.*\* From Philadelphia, Pa. Presented by James Lambert, Superintendent of the Botanical Laboratories of the University of Pennsylvania. A South African bulbous plant, received under the name "flammeus". It has linear to lanceolate leaves and umbels of red flowers. For trial outside in the Gulf region and southern California and indoors elsewhere. (Glenn Dale, Md.)

65011. *CYTISUS STENOPETALUS*.\* Broom. From the Canary Islands. Collected by David Fairchild, Bureau of Plant Industry. A handsome leguminous shrub or small tree, 20 feet or less in height, with silky-hairy foliage, and elongated racemes of bright-yellow flowers. In the Canary Islands this shrub is used for feeding goats. (Plants probably ready about April.) For trial in the southern United States. (Chico, Calif.)

78081. *DEUTZIA SP.* From France. Obtained from E. Turbat & Co., Orleans. Var. Discolor grandiflora. A hybrid form with flowers in upright panicles, pink in the bud, and rosy white when open. For trial only in the South and on the Pacific coast. (Glenn Dale, Md.)

101279. *DIANELLA INTERMEDIA*. Liliaceae. From New Zealand. Obtained from A. Wilkinson, Tauranga. A perennial herb, native to New Zealand, with numerous sword-shaped leaves 3 feet long forming a rosette at the base of a scape 2 feet high. The spreading panicle of small purplish flowers with bright-orange anthers is followed by broadly oblong blue berries nearly an inch in length. For trial in the warmer parts of California and the Gulf region. (Glenn Dale, Md.)



106523. *DIGITALIS AMBIGUA*. Foxglove. From Gabrove Monastery, Bulgaria. Collected by Dr. E. A. Anderson of the Arnold Arboretum. A perennial or biennial species, 2 to 3 feet high, with ovate-lanceolate leaves, downy beneath; flowers yellowish, marked with brown, smaller than those of the common foxglove. This introduction is from the most northern range of the species. For trial in all but the warmest and coldest parts of the United States. (Glenn Dale, Md.)

106524. *DIGITALIS VIRIDIFLORA*. Foxglove. From Bulgaria. Collected near Rila Monastery, Rila Mountains, by Dr. E. A. Anderson, Balkan Expedition of the Arnold Arboretum. A perennial species with ovate-lanceolate, denticulate, glandular-canescens, membranous leaves and 4-foot stalks bearing very numerous, slender flowers not over 2 inches long and of a clear greenish-yellow color. These plants are grown from seed from the northern range of the species. For trial in all but the coldest parts of the Northern States. (Glenn Dale, Md.)

103406. *EHRETIA ELLIPTICA*. Boraginaceae. From Texas. Presented by Peter H. Heinz, Brownsville. Mexican names, anagua and manzanillo. An ornamental shrub or tree up to 50 feet high, native to western Texas and northern Mexico. The thick oblong leaves are 1 to 4 inches long and as rough as sandpaper. The small white fragrant flowers are borne profusely and are followed by sweet edible yellow fruits about  $\frac{1}{4}$  inch in diameter. The wood is used for tool handles and wheel spokes. In southern Texas young trees are used for lawn planting. For trial in the southwest and the Gulf region. (Chico, Calif.)

101915. *ELEUTHERINE PALMIFOLIA*. Iridaceae. From the Philippine Islands. Presented by Dr. W. Dwight Pierce. A shade-loving tropical irislike plant with one or two linear-lanceolate leaves 1 to  $1\frac{1}{2}$  feet long, and white flowers an inch across, with bright yellow centers, borne on a scape 6 to 9 inches high. The flowers open in the early evening, for only about an hour. Native to the American Tropics and naturalized in the Philippines. (Glenn Dale, Md.)

116211. *ERYTHRINA ACANTHOCARPA*. From South Australia. Presented by J. Howard Johnson, St. Peters. A rigid wide-spreading shrub, native to South Africa, 4 to 6 feet high, armed with sharp awl-shaped reflexed prickles. The leaves are made up of 3 elliptical leaflets  $\frac{1}{2}$  to 1 inch long and 1 to 2 inches broad; the scarlet flowers, 1 to 2 inches long, are in lateral and terminal racemes and are followed by twisted prickly pods. (Supply very limited.) For trial in central and southern Florida and southern California. (Glenn Dale, Md.)

111871. *EUCALYPTUS CRUCIS*. Myrtaceae. From Australia. Presented by F. H. Baker, Richmond, Victoria. A small tree, 25 feet or less high, glaucous throughout, with small thick ovate to lanceolate leaves about  $1\frac{1}{2}$  inches long. Native to Western Australia. For trial in southern California and the warmer parts of the Gulf region. (Chico, Calif.)

113765. *EUCALYPTUS MICROTHECA*. From Australia. Collected in Central Australia and presented by the Melbourne Botanic Gardens, South Yarra. The tree prefers a ferruginous-gravelly soil, perfectly drained. It is reported to withstand very high temperatures in Central Australia and yet not to be affected by exceptionally severe frosts (18° F.) in the south of France when many other eucalypts suffered. The

development of this species in southern France and Algeria many years ago was said to be marvelously rapid. It is one of the best trees for desert tracts and in favorable places reaches 150 feet high. The wood is brown, hard, heavy, and elastic; it is prettily marked, hence used for cabinetwork, but more particularly for piles, bridges, and railway sleepers. For trial in southern California and the Gulf region. (Chico, Calif.)

103776. EUNYMUS JAPONICUS. From Japan. Collected by P. H. Dorsett and W. J. Morse, Bureau of Plant Industry, in Heibya Park, Tokyo. This form is a tree 20 feet high, the fruits of which are said to be 1- to 2-seeded, reddish in color, and borne on rather stiff stems than stand up among the leaves. For trial from Washington, D. C., and Tennessee southward and on the Pacific coast. (Glenn Dale, Md.)

102937. EURYA SP. From China. Collected in Lu Shan, Kiangsi Province, and presented by A. N. Steward, University of Nanking. The euryas are shrubs with simple evergreen leaves and small flowers commonly in axillary clusters followed by usually black, berrylike fruits. This unidentified species has attractive obovate to elliptic, shortly acuminate, denticulate, glabrous leaves about 2 inches long. The foliage resembles that of Eurya acuminata. (Supply limited.) For trial in the Gulf region and in southern California. (Glenn Dale, Md.)

67798. FATSIEDERA LIZEI.\* Araliaceae. From Paris, France. Plants presented by Vilmorin-Andrieux & Co. A supposed hybrid between Fatsia japonica moseri, a compact, Japanese shrub with shining leaves, and Hedera helix hibernica, a large-leaved Irish variety of English ivy, forming erect shrubby evergreen plants with leaves intermediate between the parents in size and lobing. The plant probably will withstand temperatures down to about 0° F. without protection. For trial from Philadelphia southward and in California. (Glenn Dale, Md.)

103931. FEROCACTUS LATISPINUS. From Cuba. Presented by the Atkins Institution of the Arnold Arboretum, Cienfuegos. A stout globular cactus about a foot high with 10 to 15 white to pink spines arising from each areole. Of these spines the 4 or 5 central ones are much stouter, with one much flattened and hooked. The campanulate flowers, about 1 inch long are rose purple. It is native to Mexico and was collected there by Prof. Juan Balme, botanical explorer. (Supply limited.) For indoor culture only except in the southern parts of California, Arizona, and Florida. (Glenn Dale, Md.)

111595. FICUS SP. Fig. From Colombia. Collected by W. A. Archer, Bureau of Plant Industry. A tree bearing small edible red fruits. The young plants are of vigorous growth, with dark-green, glossy, narrowly obovate leaves 5 to 8 inches long, terminating in an abruptly pointed tip. For trial in southern California and the Gulf region. (Chico, Calif.)

72962. FOKIENIA HODGINSII. Pinaceae. From France. Obtained from Leon Chenault, Orleans. A rare coniferous tree up to 40 feet high, with much-flattened twigs and with foliage resembling that of Libocedrus; the lateral leaves are spreading, and acute at the apex. Native to Fokien Province, southeastern China. For trial only in the Gulf region and the milder parts of California. (Glenn Dale, Md.)



98145. *FORSYTHIA INTERMEDIA DENSIFLORA*. Oleaceae. From England. Obtained from Aldenham House Gardens, Elstree, Herts. A shrub with spreading and pendulous branches, and much crowded, flat, rather pale flowers with slightly recurved lobes. For trial in all but the coldest parts of the Northern States. (Glenn Dale, Md.)

111356. *FRAXINUS GRIFFITHII*. Oleaceae. From China. Received from H. H. Chung, Wuchang, Hupeh Province. A handsome tree, about 45 feet high, native to the mountainous areas of western China and northeastern India, with leathery, elliptic, entire leaflets about 4 inches long. The small white flowers are in large, loose, bracted panicles. For trial in the Gulf region and on the Pacific coast. (Glenn Dale, Md.)

112093. *FRAXINUS HOLOTRICHA*. Collected by Dr. E. A. Anderson Balkan Expedition of the Arnold Arboretum. A small tree of unknown origin, first observed in cultivation in Germany. The leaves, 6 to 10 inches long, are composed of 9 to 13 leaflets. The young branchlets, leaf-stalks, and both surfaces of the leaves are clothed with a dense soft down. For trial especially in the drier cold regions of the United States. (Glenn Dale, Md.)

97292. *GLOTTIPHYLLUM DEPRESSUM*. Aizoaceae. From Africa. Presented by C. Starke & Co., Ltd., Mowbray, Capetown, through Mrs. C. I. DeBevoise, Greens Farms, Conn. A stemless prostrate succulent, native to southern Africa, with narrow tongue-shaped, recurved-depressed acute leaves, and large solitary yellow flowers with recurved petals, on a short peduncle. (Supply very limited.) For trial indoors except in the Gulf region and the warmest parts of the Southwest. (Glenn Dale, Md.)

78211. *HAWORTHIA CYMBIFORMIS*. From Grahamstown, South Africa. Obtained from W. & C. Gowie, through Hugh Evans, Santa Monica, Calif. A South African succulent with rosettes, 3 to 4 inches broad, of 20 to 25 obovate leaves, 2 inches long, pale green marked on the upper half with vertical lines of darker green. (Supply limited.) For trial indoors only except in the Gulf region and the warmest parts of the Southwest. (Glenn Dale, Md.)

97294. *HEREROA* SP. Aizoaceae. From South Africa. Presented by C. Starke & Co., Ltd., Capetown, through Mrs. C. I. DeBevoise, Greens Farms, Conn. (Received under the specific name stanleyi, for which no published description has been found.) The plant is a small leafless succulent with opposite, terete, fleshy branches, those arising from near the base being rebranched. It is said to bear an abundance of yellow flowers. (Supply very limited.) For trial in the warmer parts of southern California and the Gulf region. (Glenn Dale, Md.)

110846. *HYLOCEREUS POLYRHIZUS*. Night-blooming cereus. From Colombia. Collected by W. A. Archer, Bureau of Plant Industry. A slender high-climbing cactus, usually 3-angled, with aerial roots. The ribs are rather thin but become turgid in older plants; margin nearly straight, obtuse, not horny; spines 2 to 4, brownish, rather stout. Flowers 10 to 12 inches long, the outer petals reddish, the inner nearly white. (Supply very limited.) For trial indoors only except in practically frostless localities. (Glenn Dale, Md.)

76345. HYMENANTHERA CRASSIFOLIA. Violaceae. From France. Presented by Vilmorin-Andrieux & Company, Verrieres-le-buisson, Seine-et-Oise. A dense half-evergreen drought-resistant shrub up to 6 feet high, often with branches prostrate, with crowded obovate leaves, small yellowish-white or brownish flowers and small berry-like white fruits. It is useful for edging, also as a pot plant, and when so used should be cut back heavily while young to induce free branching. The plant has withstood a temperature of 11° F. It is propagated easily by cuttings. Native to New Zealand. For trial in California and the Gulf states. (Chico, Calif.)

111360. ILEX MICROCOCCA.\* Holly. From China. Obtained from H. H. Chung, Wuchang, Hupeh Province. A holly with oblong papery leaves 3 to 4 inches long and very small red berries 1/6 inch in length. Native to Japan and China. For trial in the South and on the Pacific coast. (Glenn Dale, Md.)

55489. ILEX PARAGUARIENSIS.\* Yerba mate, or Paraguay tea. Originally from Argentina. These plants are seedlings of trees grown by C. S. Judd, Territorial Forester, Honolulu, Hawaii, the seeds being presented by him. A small tree, from the specially prepared leaves of which the popular South American drink mate is made; in many sections it largely takes the place of both tea and coffee. Its stimulating effect is due to small quantities of caffein present; unlike tea, the leaves contain but little tannin. The tree withstands a few degrees of frost without injury but when very young should be protected in frosty weather. For trial in the milder parts of Florida and southern California. (Glenn Dale, Md.)

105222. ILEX PARAGUARIENSIS. Yerba mate, or Paraguay tea. From Argentina. Presented by the Director, Estacion Experimental Central, Pargamino, through the Pan American Union. Same description as for the preceding (P. I. No. 55489). (Glenn Dale, Md.)

102299. ILEX PEDUNCULOSA.\* Longstalk holly. From Manchuria. Obtained from Manshu Nosan Shokai, Inc., Dairen. An evergreen shrub or small tree up to 30 feet high, native to Japan. The ovate entire leaves, 1 to 3 inches long, are lustrous green above, and the small flowers, in slender-stemmed cymes, are followed by bright-red fruits 1/4 inch in diameter, on slender pedicels 1 inch long. For trial from Philadelphia southward and in the Pacific Coast States. (Glenn Dale, Md.)

102300. ILEX ROTUNDA. Holly. From Manchuria. Obtained from Manshu Nosan Shokai, Inc., Dairen. A large evergreen tree, sometimes 40 feet or more high, with glossy green entire, elliptic or oblong leaves 2 to 4 inches long, and small globose scarlet berries. Native to Japan and Chosen. For trial in the Southern States. (Glenn Dale, Md.)

102301. ILEX SUGEROKI.\* Holly. From Manchuria. Obtained from Manshu Nosan Shokai, Inc., Dairen. A dense evergreen shrub 6 feet high with pubescent branchlets, elliptic-acute leaves 1 to 2 inches long, serrate above the middle, and solitary fruits about one-third of an inch in diameter on pedicels 1 inch long. It is native to Japan. Probably hardy as far north as southern Ohio. (Glenn Dale, Md.)



112222. *ILEX* SP. Holly. From China. Collected in Kwangsi Province by A. N. Steward, University of Nanking. An unidentified species of holly, the young plants of which have cuneate, elliptic-lanceolate to oblanceolate, shortly acuminate, serrulate leaves. For trial in the Gulf region and on the Pacific coast. (Glenn Dale, Md.)

113870. *INCARVILLEA OLCAE*. Bignoniaceae. From U. S. S. R. Presented by the Botanic Garden, University of Middle Asia, Tashkent. A hardy semi-shrubby perennial 2 to 3 feet high, with alternate pinnate leaves 2 to 4 inches long and pale-pink flowers in terminal clusters. (Supply limited.) For trial in the Southern States and in California. (Glenn Dale, Md.)

101362. *KALANCHOE AROMATICA*. Crassulaceae. From France. Presented by the Museum of Natural History, Paris. A succulent perennial, native to Madagascar, characterized by being covered throughout with viscous red glands and by having a strong aromatic odor. The leaves are triangular-lanceolate and the small flowers, greenish yellow with red lips, are in terminal cymes. For trial indoors only except in frostless localities. (Glenn Dale, Md.)

96824. *KALANCHOE CRENATA*\* From Sweden. Presented by the Director, Botanic Garden, Stockholm. A succulent perennial native to tropical Africa, 2 to 6 feet high, with a thick fibrous root, oblong or roundish-oval crenate leaves about 2 inches long, and bright-yellow flowers, half an inch long, in terminal and axillary cymes. For trial indoors only except in frostless localities. (Glenn Dale, Md.)

98164. *KENNEDIA COMPTONIANA* (*Hardenbergia comptoniana*). From Australia. Presented by F. H. Baker, Richmond. A leguminous twining vine, with leaves composed of three or five leaflets. The present plants are of a woody free-growing form in which the leaves mostly have 5 linear-lanceolate coriaceous leaflets. The flowers, produced in early spring, are light purple to violet and are often obscured by the profuse foliage. Native to Australia. Propagated from seeds and from cuttings of firm green wood. (Supply limited.) For trial in southern California and southern Florida. (Chico, Calif.)

113768. *KENNEDIA COMPTONIANA*. From Australia. Presented by the Melbourne Botanic Gardens, South Yarra. A form having leaves usually with three ovate-lanceolate leaflets with obtuse apex, only slightly coriaceous. The stipules are lighter green and larger than in the preceding (PI No. 98164) and are persistent; the plant also is faster growing and requires more support. (Supply limited.) For trial in southern California and southern Florida. (Chico, Calif.)

41679. *KOELREUTERIA BIPINNATA*\* Goldenrain-tree. From Taiwan (Formosa). Presented by the Chief, Bureau of Productive Industry, Taihoku. A rather handsome tree up to 60 feet high, with bipinnate leaves having ovate to oblong, serrate leaflets  $1\frac{1}{2}$  to 4 inches long. The bladderly capsules are globose-ovoid. Native to western China. For trial in the Southern States and on the Pacific coast. (Chico, Calif.)

102948. *LAGERSTROEMIA INDICA*. Crape myrtle. From Nanking, China. Collected in Lu Shan, Kiangsi Province, and presented by A. N. Steward, University of Nanking. These seedling plants are variable but are mostly light pink to lavender flowered. For trial in the Southern States and on the Pacific coast. (Glenn Dale, Md.)

112213 and 112302. LAPLACEA INTERMEDIA. Theaceae. From Ecuador. Collected in Carchi Province, at 7,500 feet altitude, by Mrs. Ynes Mexia, Bureau of Plant Industry. An evergreen shrub, allied to Gordonia, with obovate-elliptic leaves 1 inch long, and white flowers about 1 inch across. Native to Ecuador. For trial in the warmer parts of the Gulf region and on the Pacific coast. (Glenn Dale, Md.)

110270. LAWSONIA INERMIS.\* Henna. Received from Dr. Hamilton P. Traub, Bureau of Plant Industry, Orlando, Florida. A rapid-growing, ornamental, evergreen shrub, 6 feet high, with glaucous leaves and small yellowish flowers produced in large showy panicles. The flowers exhale a strong fragrance, especially at night, and contain a volatile oil used in perfumery. A dye is made from the leaves and young branches. Recommended for hedges. For trial in Florida and southern California. (Glenn Dale, Md.)

111782. LEPTODERMIS LANCEOLATA. Rubiaceae. From India. Presented by H. A. Lee, Simla. A rigid erect shrub with opposite lanceolate leaves up to 4 inches long, and small white flowers in terminal fascicles. Native to the temperate Himalayas at altitudes of 4,000 to 10,000 feet. For trial on the Pacific coast and in the Gulf region. (Glenn Dale, Md.)

89315. LEPTOSPERMUM ERICOIDES. Myrtaceae. From New Zealand. Obtained from Duncan & Davies, Ltd., New Plymouth. An evergreen shrub or tree, at times a large tree, with loose papery bark and slender branchlets. The narrowly lanceolate leaves are but half an inch long, and the small white axillary flowers are usually produced in great profusion. For trial in the south Atlantic and Gulf regions and on the Pacific coast. (Glenn Dale, Md.)

107630. LIGUSTRUM VULGARE. Privet. From Yugoslavia. Collected at Sarajevo by Dr. E. A. Anderson, Balkan Expedition of the Arnold Arboretum. This and the succeeding numbers were collected by the Expedition in unusually cold and dry localities.

107631. Ligustrum vulgare. Collected at Cluj, Rumania

108763. " " " " Sarajevo, Yugoslavia.

112095 " " " " Cluj, Rumania.

112096 " " " " " " "

(Glenn Dale, Md.)

102228. LIGUSTRUM SP.\* Privet. Presented by L. Parde, Directeur des Ecoles Forestieres des Barres, Nogent-sur-Vernisson, Loiret. A shrub up to 22 feet high, resembling Ligustrum chenaultii. For trial in the more temperate parts of the United States. (Glenn Dale, Md.)

108387. LIMONIUM SP. Plumbaginaceae. Sea-lavender. From the Soviet Union. Collected at Chelkar by H. L. Westover and C. R. Enlow, Bureau of Plant Industry. The species of Limonium have panicles of small blue, lavender, white, red, or yellow flowers on leafless branched scapes 1 to 2 feet high. This unidentified species is an herbaceous perennial with rosettes of narrowly ovate radical leaves up to 8 inches long, of which the basal third is narrowed into a petiole. For trial in all but the warmest and coldest parts of the United States. (Glenn Dale, Md.)



82105. *LIRIOPE GRAMINIFOLIA*.\* Snakebeard. From Chosen. Collected in the Imperial Botanical Gardens, Keijo, by P. H. Dorsett and W. J. Morse, Bureau of Plant Industry. It grows about a foot high, with grasslike leaves and purple to whitish flowers half an inch across, in racemes arising from scapes which appear through the leaves. It is used in place of grass in situations where dense shade and shallow rooting of trees prevent the satisfactory growth of grass. For trial in the upper South and all except the coldest parts of the Northern States. (Glenn Dale, Md.)

105895. *LONICERA BICOLOR*. From India. Collected at 10,000 feet altitude, at Sunnam, Rampur, Bashahr, by Walter Koelz, University of Michigan. A small much-branched shrub with small, elliptic-orbicular leaves, green and slightly hairy above, glaucous green and more hairy beneath. The orange-red flowers are borne in pairs toward the ends of the branchlets. It is closely allied to *Lonicera hypoleuca*. Native to the Himalayas. For trial in the Gulf region and on the Pacific coast. (Glenn Dale, Md.)

80814. *LONICERA CAERULEA EDULIS*.\* Honeysuckle. From Japan. Collected by P. H. Dorsett and W. J. Morse, Bureau of Plant Industry. A shrub about 4 feet high, with pubescent branchlets and oblong to lanceolate pubescent leaves 1 to 2 inches long. The small oblong fruits are bright red. For trial throughout the Northern States. (Glenn Dale, Md.)

107632. *LONICERA NIGRA*. Honeysuckle. From the Balkans. Collected by Dr. E. A. Anderson, Balkan Expedition of the Arnold Arboretum. A deciduous shrub to 5 feet high, with leaves  $1\frac{1}{2}$  to  $2\frac{1}{2}$  inches long, bright green above and light bluish-green beneath. The bluish-black fruits mature in August and September. Native to Europe and Chosen. For trial in all but the coldest parts of the Northern States. (Glenn Dale, Md.)

22982. *LOROPETALUM CHINENSE*.\* From China. Collected at Soochow, Kiangsu, by F. N. Meyer. Native name, Cho mei. An ornamental evergreen shrub, allied to the witch-hazel, sometimes growing into a small tree. It bears elliptical to ovate dark-green leaves about  $1\frac{1}{2}$  inches long and in early spring is covered with delightfully fragrant white flowers having slender strap-shaped petals half an inch long. It may be grown in a cool greenhouse, as well as out-of-doors where the winters are not too severe. For pot culture a soil containing peat and sand is best. For trial out-of-doors from Philadelphia southward to the Gulf and on the Pacific coast. (Glenn Dale, Md.)

78148. *LOROPETALUM CHINENSE*.\* From Nancy, France. Obtained from V. Lemoine & Son. Same description as for preceding (P. I. No. 22982) except that the leaves are usually ovate with acute tips, and slightly longer, and the petals of the flowers are even more slender than in the preceding. (Glenn Dale, Md.)

106746. *MAACKIA AMURENSIS BUEGERI*. From Washington, D. C. Collected by O. M. Freeman, Bureau of Plant Industry, in the National Botanic Garden. A deciduous tree about 15 feet high with odd-pinnate leaves; the 7 to 11 leaflets are pubescent and 2 to 3 inches long. The small white flowers are borne in dense upright racemes. Native to Japan. (Supply limited.) For trial in the Northern States. (Glenn Dale, Md.)

112739. MAURANDYA BARCLAIANA. Scrophulariaceae. From Brazil. Obtained through Dr. Doris Cochran of the Smithsonian Institution. A somewhat woody climber, with angular, cordate, acuminate, long-petioled leaves, and showy deep-purple, tubular, 2-lipped flowers, downy on the outside. Native to Mexico. For trial out-of-doors in the warmer parts of southern California and the Gulf region and indoors elsewhere. (Glenn Dale, Md.)

112738. MAURANDYA ERUBESCENS.\* Scrophulariaceae. From Brazil. Collected at Nova Friburgo by Dr. Doris Cochran of the Smithsonian Institution. A tender woody climber, glandular-hairy, with serrate leaves somewhat triangular in outline; petioles and peduncles twining. The flowers are rosy pink and 3 inches long. For trial in the Gulf region and southern California. (Glenn Dale, Md.)

105931. MELIA SP. From India. Presented by Walter Koelz through Prof. H. H. Bartlett, University of Michigan, Ann Arbor. From Arsu, Kulu, Punjab. A tropical tree with very attractive long clusters of purple flowers. It does not stand frost. (Supply very limited.) For trial only in the warmest parts of southern Florida and southern California. (Glenn Dale, Md.)

81262. MESEMBRYANTHEMUM PRODUCTUM. Figmarigold. From the Union of South Africa. Presented by the Director of the National Botanic Gardens, Kirstenbosch, Newlands, near Cape Town. A dwarf succulent with erect stems 1 to 2 inches high, with crowded incurved semicylindrical leaves 1 to 2 inches long, and pale rose-colored flowers in twos and threes on peduncles about an inch long. Native to South Africa. For trial indoors only except in the warmer parts of the Gulf region and the Southwest. (Glenn Dale, Md.)

78235. MESEMBRYANTHEMUM SP. From Union of South Africa. Obtained from W. & C. Gowie, Grahamstown, through Hugh Evans, Santa Monica, Calif. An erect succulent perennial, branching from the main stem, with thick fleshy glaucous-green leaves about 2 inches long, triangular in cross section. The leaves resemble those of Mesembryanthemum aureum. For trial indoors only except in the warmer parts of the Gulf region and the Southwest. (Glenn Dale, Md.)

101401. METAPLEXIS JAPONICA. From Manchuria. Presented by B. V. Skvortzov, Chinese Eastern Railway, Harbin. A climbing shrubby milkweed, growing to 10 feet long, with opposite cordate undulate leaves and small pale-rose to white flowers in axillary clusters. It grows in dry places. Native to China and Japan. (Supply limited.) For trial especially in semi-arid regions. (Glenn Dale, Md.)

77606. METROSIDEROS TOMENTOSA. Iron tree. From New Zealand. Obtained from Duncan and Davies, New Plymouth. A freely branching tree, native to the North Island of New Zealand, up to 70 feet high and 5 feet in diameter, with coriaceous gray-green leaves, 1 to 4 inches long, tomentose beneath, and terminal cymes of flowers conspicuous for their long crimson stamens as in the other bottlebrushes. For trial in southern California and southern Florida. (Chico, Calif.)

114772. MUSSAENDA DIVARICATA.\* Rubiaceae. From Szechwan Province, China. Received through the Botanic Garden at Nanking. An erect or climbing evergreen shrub 3 feet or more in height, with elliptic-ovate, abruptly acuminate, papery leaves 3 to 5 inches long, and lax cymes of yellow flowers. Native to western China. For trial in the South and on the Pacific coast. (Glenn Dale, Md.)



63629. MYROXYLON SENTICOSUM. Flacourtiaceae. From Canton, China. Collected by F. A. McClure, Bureau of Plant Industry. Chinese name Kai na lak. A very ornamental and shapely large shrub or small tree, having dense, glossy foliage, and producing an abundance of small, dark-red fruits which are borne in short-stemmed clusters along the branches. It has attracted attention as a possible hedge plant in California because of its pleasing foliage, rapid growth, and moderate drought resistance. For trial in the milder parts of California and the Gulf region. (Chico, Calif.)

109527. MYRTUS COMMUNIS. Myrtle. From Turkey. Collected northwest of Adana by H. L. Westover and C. R. Enlow, Bureau of Plant Industry. Var. Leucocarpa. A handsome evergreen shrub or small tree, sometimes 10 feet high, with opposite, ovate to lanceolate, acute, shining leaves, and white or reddish solitary axillary flowers. Both leaves and flowers are strongly scented. The fruits of this variety are white. Native to the Mediterranean region. For trial in southern California and southern Florida. (Chico, Calif.)

109528. MYRTUS COMMUNIS. Myrtle. From Turkey. Collected northwest of Adana by H. L. Westover and C. R. Enlow, Bureau of Plant Industry. Var. Melanocarpa. Same description of plant as for the preceding but the fruits are black. (Chico, Calif.)

107757. NANNORHOPS RITCHIEANA. Mazri palm. From India. Obtained by Prof. Nawazish Ali of Peshwar from R. R. Stewart, Gordon College, American United Presbyterian Mission, Rawalpindi. A very rare cluster palm, native to the mountains of Afghanistan and western India, which appears to be at least as hardy as the true date palm. The rigid, fan-shaped leaves are very glaucous both above and below. For trial in the Gulf region and the milder parts of the Southwest. (Glenn Dale, Md.)

114264. NEPETA DISCOLOR. Menthaceae. From India. Collected at Kyibar, Spiti, Punjab, by the Asiatic Expedition, Bureau of Plant Industry. An herbaceous perennial with ascending stems, small, broadly ovate or cordate-ovate, crenate leaves, and spikes of small blue-and-white flowers. It is said to be used for fodder. (Available only as rootstocks.) For trial in the South and in the milder parts of the Northern States. (Glenn Dale, Md.)

114979. OCIMUM GRATISSIMUM. From Ceylon, India. Collected at Gatukatota, near Kandy, by W. Koelz, Bureau of Plant Industry. A bushy shrub 4 to 8 feet high, with ovate, acute, coarsely toothed or crenate leaves 2 to 4 inches long, and very small pale-yellow flowers in whorls. Native to subtropical regions in northeastern India. For trial in the warmer parts of the Gulf region and in southern California. (Glenn Dale, Md.)

110948. OENOTHERA TETRAPTERA.\* Evening-primrose. From Colombia. Collected by W. A. Archer, Bureau of Plant Industry. An ornamental plant a foot high, with deeply cut leaves and flowers an inch across that open white in the morning and later turn pink. The fruits are top-shaped and 4-winged. Of possible use in rock gardens. For trial in the South and on the Pacific coast. (Glenn Dale, Md.)

103788. *OPUNTIA ROBUSTA*. Presented by A. Bircher, Middle Egypt Botanic Station, El Saff, Egypt, through the Atkins Institution of the Arnold Arboretum, Cienfuegos, Cuba. A stout erect cactus, sometimes as much as 15 feet high, with many branches. The round or oblong joints, 8 to 10 inches long, are very thick and bluish green, with 8 to 12 stout brownish spines 1 or 2 inches long. The yellow flowers, 2 inches across, are succeeded by deep-red fruits about 3 inches long. Native to central Mexico. For trial indoors only except in the warmest parts of the Southwest. (Glenn Dale, Md.)

110949. *ORTHROSANTHUS CHIMBORACENSIS*. Collected in Venezuela by W. A. Archer, Bureau of Plant Industry. An irislike plant, native to the Andes, with a short woody rhizome, grasslike leaves a foot or more long, and small blue flowers opening in succession along a lax narrow panicle. For trial in all except the warmest parts of the United States. (Glenn Dale, Md.)

99963. *OSBECKIA CAPITATA*.\* Melastomaceae. From China. Collected by the Forrest Expedition to southwestern China and presented by Maj. Lionel de Rothschild, London, England. An ornamental, much-branched, perennial herb 1 to 2 feet high, native to India. The ovate hairy leaves are 1 inch or more long, and the purple flowers, 1 inch across and with conspicuous yellow stamens, are in clusters. The very hairy fruits,  $\frac{3}{4}$  inch long, lend attractiveness to the plant when flowering is past. The species has been used as a summer bedding plant in the North. For trial outside in the South and on the Pacific coast, and indoors or for summer bedding elsewhere. (Glenn Dale Md.)

102908. *OSBECKIA CRINITA*.\* From India. Presented by the Curator, Lloyd Botanic Garden, Darjeeling, through Dr. Ralph A. Fenton, Portland, Ore. A handsome branching shrub 3 to 8 feet high, with hairy leaves  $1\frac{1}{2}$  to 4 inches long, and purple flowers somewhat larger than those of *Osbeckia capitata*. Except for the greater height of plant and the larger size of leaves and flowers, the plants of the two species are similar in appearance. This plant is abundant at altitudes between 4,000 and 8,500 feet in the mountains of Sikkim and Bhutan, India. For trial outside in the Gulf region and in southern California and indoors or as a summer bedding plant in the North. (Glenn Dale, Md.)

114981. *OSBECKIA RUBICUNDA*. From Ceylon, India. Collected at Hakgala Gardens by Walter Koelz, Bureau of Plant Industry. A branched shrub, 4 to 6 feet in height, with hairy elliptic leaves about 2 inches long, and brilliant purplish-crimson flowers borne in clusters of one to five. Native to Ceylon. For trial outside in southern Florida and southern California only. (Glenn Dale, Md.)

114774. *PATRINIA VILLOSA*. Valerianaceae. From China. Received from Szechwan Province, through the Botanic Garden, Nanking. An erect perennial 1 foot high with lower leaves auriculate, the upper ovate, smaller, about 2 inches long. The small yellow flowers are in cymes. Native to Japan. For trial south of the Ohio River and on the Pacific coast. (Glenn Dale, Md.)

114090. *PENTAS LANCEOLATA*.\* From Africa. Obtained from the Mt. Elgon Nurseries, Kitale, Kenya Colony. A soft-wooded tropical shrub 1 to 2 feet high, with ovate, elliptic, or lance-oblong leaves 3 to 6 inches long. The flowers, up to 1 inch long, are in terminal heads and range from lilac to rose purple. For trial outside in the warmer parts of the Gulf region and southern California only. (Glenn Dale, Md.)



113844. *PENTAS LONGIFLORA*.\* Rubiaceae. From Africa. Obtained from Mt. Elgon Nurseries, Kitale, Kenya Colony. An erect evergreen shrub 2 to 3 feet high, with linear-lanceolate, acuminate leaves 2 to 4 inches long, and pink flowers about 1½ inches long, in dense terminal cymes. Native to Mt. Kilima, Njaro, Kenya, at 5,000 feet altitude. For trial outside in the warmer parts of the Gulf region and southern California only. (Glenn Dale, Md.)

78151. *PHILADELPHUS* SP. From France. Obtained from V. Lemoine & Son, Nancy. Atlas. A handsome tall-growing sort with enormous fragrant flowers, over 2½ inches wide, which have broad milk-white petals. For trial in all except the warmest and coldest parts of the United States. (Glenn Dale, Md.)

103487. *PHLOGACANTHUS THYRISFLORUS*. Acanthaceae. From India. Collected in Bhadwar, Kangra, Punjab, at 2,000 feet altitude, by Walter Koelz, University of Michigan. Native name, Paskaka narpo. A scraggly shrub 8 feet high, with large attractive lanceolate leaves and spikes of lovely rose-madder flowers; found in deep glens along streams, but not in heavy shade. The plant prefers a rather warm damp atmosphere and a soil rich in humus. It is adapted for greenhouse culture and may be propagated by seeds or cuttings. For trial out-of-doors in the warmer parts of the Gulf and Pacific coast regions. (Glenn Dale, Md.)

78179. *PICEA GLEHNI*. Saghalin spruce. From Japan. Collected in the University Forest, near Toikanbetsu, Teshio Gun, Hokkaido, by R. K. Beattie, Bureau of Plant A handsome Japanese evergreen tree up to 120 feet high, with lustrous brown or violet cones. For trial in the Northern States. (Glenn Dale, Md.)

90666. *PICEA JEZOENSIS*. Yeddo spruce. From Manchuria, China. Collected by P. H. Dorsett and W. J. Morse, Bureau of Plant Industry. A Japanese tree, up to 150 feet high, with dark-gray bark and slender horizontal spreading branches. The leaves are silvery white above and dark green beneath, and the staminate flowers are orange-crimson. For trial in all but the coldest parts of the Northern States. (Glenn Dale, Md.)

97948. *PICEA KOYAMAI*. Spruce. From Japan. Presented by M. Tozawa, Director, Forest Experiment Station, Keijo, Chosen. A narrowly pyramidal tree 60 feet high, native to Japan and Chosen, with reddish-brown bloomy branches and compressed leaves half an inch long, with two white bands above. The pale-brown cylindric cones are 2 to 3 inches long. For trial in the Northern States and in the Appalachian region of the South. (Glenn Dale, Md.)

84025. *PICEA* SP. Spruce. From Yunnan Province, China. Collected by Dr. J. F. Rock, National Geographic Society. A tree 50 to 60 feet high, with rather large cones, found in the forests of Gaba north of Likiang at 11,000 feet altitude. The foliage of the seedlings much resembles that of *Picea heterolepis*. For trial in all but the coldest parts of the Northern States. (Supply very limited.) (Glenn Dale, Md.)

78375. *PILEOSTEGIA VIBURNOIDES*. Hydrangeaceae. From England. Procured from G. Reuthe, Foxhill Hardy Plant Farms, Keston, Kent. A handsome halfhardy Chinese evergreen climber, provided with aerial roots and having lanceolate-elliptic lustrous dark-green leaves 3 to 6 inches long. The small white flowers with conspicuous

stamens, borne in large dense umbels, resemble those of Viburnum tinus; they come in mid-autumn, when the flowering of other shrubs is nearly past. The plant requires a moderately moist soil and does best in partial shade. It is easily propagated by cuttings in winter. For trial in the South and on the Pacific coast. (Glenn Dale, Md.)

89604. PINUS BUNGEANA. Lacebark pine. From China. Collected by P. H. Dorsett and W. J. Morse, Bureau of Plant Industry. A tree sometimes 100 feet high, native to China, with the bark exfoliating in large scales, leaving whitish areas which on old trees become chalky white. It is also known as the white-barked pine. For trial in all except the warmest parts of the United States. (Glenn Dale, Md.)

92056. PINUS BUNGEANA. Lacebark pine. From Manchuria. Collected by P. H. Dorsett and W. J. Morse, Bureau of Plant Industry Same description as for the preceding (PI No. 89604. ) (Glenn Dale, Md.)

95653. PINUS BUNGEANA. Lacebark pine. From China. Collected at the Tan Chow Suu Temple, Western Hills, Chihli, by Peter Liu, Peiping. Same description as for P. I. No. 89604. (Glenn Dale, Md.)

113707. PINUS CANARIENSIS. Pine. From Canary Islands. Presented by Antonio Gonzalez, Director, Horticultural Experiment Station, Teneriffe. A pine, native to the Canary Islands, which thrives in warm-temperate climates. It is suited to nearly all soils and has a straight trunk even when it grows in an isolated position. The wood of this pine, known in the Canary Islands as "Tea" is very hard, very difficult to work, but unequalled for durability and for building purposes because it does not rot. For trial in southern California and the Gulf region. (Chico, Calif.)

113289. PINUS EDULIS. Pine. From Mexico. Received from Victor Riverole, Mexico City. A small tree, generally 10 to 20 feet high, sometimes as much as 40 feet high, with horizontal branches, developing a rounded head in old age. The rigid dark-green leaves are about 1 inch long, and the small greenish-yellow cones are over an inch long. Native to the southwestern United States. For trial in the mild-wintered regions of the South and Southwest. (Chico, Calif.)

105620. PITTOSPORUM. SP.\* From southern China. Collected in a valley at 1,100 feet altitude in Kwangsi Province by A. N. Steward and H. C. Cheo, University of Nanking. A small evergreen tree about 10 feet high, with obovate to elliptic acute leaves. The foliage of the young plants resembles that of Pittosporum ferrugineum. For trial in the Gulf region and on the Pacific coast. (Glenn Dale, Md.)

111073. POTENTILLA GRIFFITHII. From India. Presented by the Lloyd Botanic Garden, Darjeeling. A tall bushy perennial, 1 to 2 feet high, with compound leaves 1 to 4 inches long, consisting of 5 to 7 leaflets, white-hairy beneath. The yellow flowers,  $\frac{1}{2}$  to 1 inch across, are in loose corymbs. Native to the Sikkim Himalayas at an altitude of about 12,000 feet. For trial in all except the warmest and coldest parts of the United States. (Glenn Dale, Md.)

43793. PUNICA GRANATUM. From China. Collected in the Botanic Gardens at Peiping by F. N. Meyer, Bureau of Plant Industry. Variety Nana. A very dwarf, double-flowered variety which bears large numbers of highly acid fruits, too small to be of value. The plants are used for pot culture in China, and in California have proved useful for hedges from San Francisco southward. For trial in the Gulf region and the Southwest. (Chico, Calif.)



111373. PYRACANTHA CRENATO-SERRATA.\* Firethorn. From China. Received from H. H. Chung, Wuchang, Hupeh Province. A spiny evergreen shrub up to 9 feet high, with young branchlets rusty-pubescent, and elliptic to obovate-oblong leaves 1 to 2 inches long, lustrous dark green above and lighter beneath. The coral-red fruits, a quarter of an inch across, are in dense corymbs. For trial in the southern half of the United States. (Glenn Dale, Md.)

111375. RHAMNUS SP.\* From China. Received from H. H. Chung, Wuchang, without description. A deciduous shrub with alternate leaves 2 to 3 inches long, in habit somewhat resembling Rhamnus heterophylla. For trial in the Southern States and on the Pacific coast. (Glenn Dale, Md.)

111377. RHUS SYLVESTRIS. From China. Received from H. H. Chung, Wuchang. An ornamental tree to 30 feet high, with compound leaves of 7 to 13 ovate to ovate-oblong acuminate leaflets  $1\frac{1}{2}$  to 4 inches long; the inconspicuous flowers, in loose panicles 3 to 7 inches long, are followed by yellowish fruits  $\frac{1}{3}$  inch across. The foliage turns deep red or scarlet in autumn. For trial from the Ohio River southward and on the Pacific coast. (Glenn Dale, Md.)

111376. RHUS SP.\* From China. Received from H. H. Chung, Wuchang, without description. A sumac from Hupeh Province, western China, apparently new to cultivation. For trial in the Southern States and on the Pacific coast. (Glenn Dale, Md.)

111790. RHUS SP. From India. Received from H. A. Lee, Simla. A species which in the seedling stage resembles some of our ordinary sumacs. (Supply very limited.) For trial in the Southern States and on the Pacific coast. (Glenn Dale, Md.)

11795. SALVIA GLUTINOSA. Sage. From India. Presented by H. A. Lee, Simla. A perennial sage about 3 feet tall, glutinous-hairy throughout, with ovate-oblong, dentate leaves up to 7 inches long, and pale-yellow flowers an inch long in lax whorls. Native to Europe and Asia. For trial in the South and on the Pacific coast. (Glenn Dale, Md.)

92759. SARCOCOCCA HOOKERIANA DIGYNA. From England. Obtained from the Aldenham House Gardens, Elstree, Herts. An evergreen shrub with leaves 1 to 3 inches long, inconspicuous white flowers, and black fruits. Native to western Szechwan. It is especially well suited for growing in the shade. For trial from Philadelphia southward and on the Pacific coast. (Glenn Dale, Md.)

92760. SARCOCOCCA SALIGNA. From England. Obtained from Aldenham House Gardens, Elstree, Herts. An evergreen shrub 2 to 3 feet high with smooth erect stems. The smooth, glossy, narrow-lanceolate leaves, 3 to 5 inches long and about an inch wide have a long drawn-out point and a marginal vein extending all around the leaves. The greenish-white flowers are in short axillary racemes, opening in winter and spring. The small ovoid purple fruits are less than an inch long. The species is native to the Himalayan Mountains and is closely allied to Sarcococca hookeriana, though probably less hardy. For trial in the Southern and Pacific Coast States. (Glenn Dale, Md.)

75162. *SASA CHRYSANTHA*. Bamboo. Presented by the Director, Royal Botanic Gardens, Kew, England. A hardy Japanese bamboo of running habit, in time producing culms up to 5 feet high, with branches from the upper nodes and with leaves 2 to 7 inches long by  $\frac{3}{8}$  to 1 inch wide. It is evergreen down to about 8° F. and is useful for mass planting and as a ground cover, either in full sun or in shade. Like other hardy bamboos, this species is likely to become weedy unless the rhizomes are prevented from spreading by a deep trench or curb. Plants furnished in lots of five. (Supply limited.) For trial in the middle and upper South and the mildest parts of the Northern States. (Chico, Calif.)

75166. *SASA PUMILA*. Bamboo. Presented by the Director, Royal Botanic Gardens, Kew, England. A dwarf hardy running bamboo up to 2 feet high, with branches near the top bearing linear-lanceolate leaves  $1\frac{1}{2}$  to  $3\frac{1}{2}$  inches long. It is native to Japan. This species thrives in fairly moist soil and is best suited to a somewhat shaded situation; the leaves tend to curl in hot dry weather. Because of its small size and grasslike leaves, in addition to the rampant nature of the rhizomes, the plant is difficult to eradicate when it escapes and becomes weedy. In proximity to a lawn or garden, therefore, it is particularly important to curb the spreading of this little bamboo. Plants furnished in lots of 5 or 10. For trial in the upper South and the milder parts of the Northern States. (Chico, Calif.)

75169. *SASA SENANENSIS*. Presented by the Director, Royal Botanic Gardens, Kew, England. A handsome broad-leaved hardy bamboo of running habit, eventually growing to 7 feet high, with single branches at the nodes of the culm. It is native to Japan. The oblong-lanceolate leaves, conspicuously glaucous beneath, are sometimes more than a foot long and nearly  $3\frac{1}{2}$  inches wide. This bamboo is evergreen down to about 0° F. It is neat in appearance and is valuable for mass planting or as a ground cover, in full sun or partial shade. It grows in dry or moist soil. The methods for control of spreading are the same as for other running bamboos. Plants furnished in lots of 5 or 10. For trial in the more temperate parts of the United States. (Chico, Calif.)

111088. *SENECIO* SP. From India. Presented by the Lloyd Botanic Garden, Darjeeling. This unidentified senecio is a slender vine with alternate, broadly ovate, shortly acute, dentate, glabrous leaves about  $1\frac{1}{4}$  inches long. Flowers not seen. For trial in the Gulf region and on the Pacific coast. (Glenn Dale, Md.)

106664. *STAPELIA CANTABRIGIENSIS*. Carrion flower. Asclepiadaceae. Presented by Mrs. J. Norman Henry, Gladwyne, Pa. A fleshy leafless cactus-like plant, with campanulate flowers over half an inch across, greenish and suffused with red or red-brown. It is a hybrid species of uncertain parentage and originated as a garden seedling. The stapelias mostly require the same treatment as cacti in culture. For trial indoors only except in the warmer parts of the Gulf region and the Southwest. (Glenn Dale, Md.)

23032. *SYRINGA MEYERI*. Meyer lilac. From China. Collected near Peiping by Frank N. Meyer, Bureau of Plant Industry. A compact shrub up to 10 feet high, native to northern China, with small oval-elliptic leaves and dense panicles of violet flowers, which appear very early in the season. These plants are grafted on *Ligustrum amurense*. For trial in the milder parts of the Northern States. (Glenn Dale, Md.)



102237. SYRINGA REFLEXA. Nodding lilac. From France. Presented by Ecoles Forestieres des Barres, Nogent-sur-Vernisson, Loiret. A shrub 12 to 16 feet high, with rough ovate leaves 3 to 6 inches long, and nearly cylindrical drooping panicles crowded with small flowers which are deep carmine in bud, fading as the flowers open to pink outside and white within; the flowers appear in June. Native to central China. These plants are grafted on Ligustrum amurense. For trial in all but the coldest parts of the Northern States. (Supply limited.) (Glenn Dale, Md.)

84512. TAMARIX CHINENSIS.\* Tamarisk. From the Soviet Union. Collected on salty lands along the Amu-Darya, in southeastern Turkistan by H. L. Westover, Bureau of Plant Industry. A shrub or small tree up to 15 feet high, with slender spreading or drooping branches and bluish-green leaves. The flowers of this species, in large loose panicles, are reported ordinarily to be pink, but in the present form they are said to be of a beautiful purple. The plant is believed to be worthy of testing under a wide variety of conditions, especially in semi-arid regions in saline soils. It is easily propagated by fresh seed but with difficulty from cuttings. For trial in all but the warmest and coldest parts of the United States. (Chico, Calif.)

113778. TEMPLETONIA RETUSA. Melbourne coralbush. From Australia. Received from the Melbourne Botanic Gardens, South Yarra. A tall leguminous shrub with angular sulcate glaucous branchlets, native to Australia. The simple leathery broadly ovate leaves are 1 inch long, and the axillary red or white flowers, 1 inch long, are solitary or in clusters of 2 or 3. For trial in southern California and southern Florida. (Chico, Calif.)

95678. TRICYRTIS HIRTA.\* Hairy toad-lily. Liliaceae. From the Netherlands. Obtained from C. G. Van Tubergen (Ltd.), Haarlem. An attractive perennial to 3 feet high, in habit suggesting our Solomon-seal but covered with downy hairs. The cordate-lanceolate leaves are conspicuously veined and clasp the stem, and the creamy-white lilylike axillary flowers are much speckled with warm lavender purple and appear late in the season. The plant thrives in the shade, in soil with a liberal quantity of leaf compost and some coarse sand. Where seed does not ripen before frost, cuttings taken in early fall may be rooted. It is native to Japan. For trial in the Southern States and on the Pacific coast. (Glenn Dale, Md.)

101207. URCEOLINA MINIATA. Amaryllidaceae. From Peru. Presented by Dr. Paul G. Ledig, Huancayo Magnetic Observatory, Carnegie Institution of Washington, D. C. A bulbous perennial, native to the Andes of Peru and Bolivia. The solid scape, 1 foot high, bears 2 to 6 urn-shaped orange-red flowers 2 inches long, after which appear the narrowly ovate leaves a foot long. (Supply very limited.) For trial outside in California and the Gulf region and as a tender summer-flowering bulb elsewhere. (Glenn Dale, Md.)

106534 and 108777. VERBASCUM LYCHNITIS. White mullein. From Bulgaria. Collected in the Rila Mountains by Dr. E. A. Anderson, Balkan Expedition of the Arnold Arboretum. A biennial herb, growing to about 3 feet high, forming a basal rosette of tomentose leaves, green above and slightly hoary beneath. Flowers small, yellow or white, in panicle spikes. Plants grown from seed from the northern range of the species. For trial in all but the warmest and coldest parts of the United States. (Glenn Dale, Md.)



111383. *VIBURNUM BETULIFOLIUM*. Caprifoliaceae. From China. Presented by H. H. Chung, Wuchang, Hupeh Province. An ornamental upright shrub up to 10 feet high, with coarsely toothed leaves, white flowers in cymes 2 to 4 inches wide, and red fruits. Native to central and western China. For trial from Massachusetts and central New York southward and west of the Rocky Mountains. (Glenn Dale, Md.)

107644. *VIBURNUM LANTANA*. Wayfaring tree. From the Balkans. Collected by Dr. E. A. Anderson, Balkan Expedition of the Arnold Arboretum. An upright tree-like shrub 15 feet high, with ovate to oblong-ovate denticulate leaves wrinkled above. These plants grown from seed collected in an unusually dry and cold situation. For trial in the Northern States. (Glenn Dale, Md.)

104603. *VIOLA PATRINII*. Violet. From France. Presented by the Museum d'Histoire Naturelle, Paris. A low stemless perennial species, native to northeastern Asia, with a stout rootstock, ovate-oblong leaves and pinkish lilac flowers about one-half inch in diameter. It self-sows freely. For trial throughout the Northern States. (Glenn Dale, Md.)

112380. *VIOLA PATRINII*. From Germany. Presented by the Botanic Garden, Berlin. Same description as for preceding (P. I. 104603.) (Glenn Dale, Md.)

111393. *WARNERIA AUGUSTA*. Cape jasmine. From China. Obtained from H. H. Chung, Wuchang, Hupeh Province. An evergreen bush about 7 feet high with flowers which resemble a double white camellia but with most exquisite perfume. The yellowish fruits are used by the Chinese to produce an inedible yellow dye. (Supply limited.) For trial in the South and on the Pacific coast. (Glenn Dale, Md.)

106841. *ZENOBIA CASSINEFOLIA*. Collected in North Carolina by Geo. M. Darrow, Bureau of Plant Industry. An ornamental deciduous shrub 3 to 6 feet high, with alternate, ovate, shallowly serrate leaves 1 to 3 inches long, and small white bell-shaped flowers in axillary clusters. Native to the pinelands of the Coastal Plain from northeastern Florida to North Carolina. For trial in the South and on the Pacific coast. (Glenn Dale, Md.)





